STATE OF MARYLAND
DHMH
Maryland Department of Health and Mental Hygiene
Larry Hogan, Governor - Boyd Rutherford, Lt. Governor - Van Mitchell, Secretary

April 9, 2016

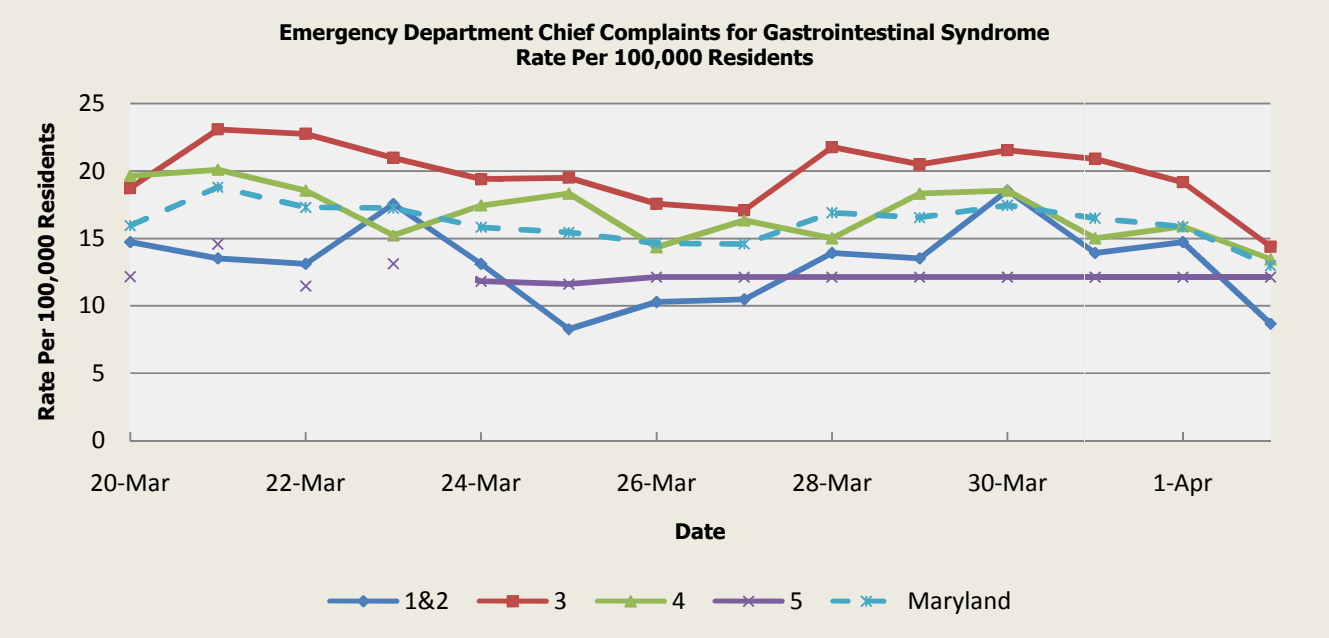
Public Health Preparedness and Situational Awareness Report: #2016:13
Reporting for the week ending 4/9/16 (MMWR Week #13)

CURRENT HOMELAND SECURITY THREAT LEVELS
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census.



There was one gastrointestinal illness outbreak reported this week: 1 outbreak of gastroenteritis/foodborne associated with a restaurant (Region 3).

	Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.93	14.79	15.42	10.30	12.97
Median Rate*	12.70	14.39	14.80	10.17	12.72

* Per 100,000 Residents

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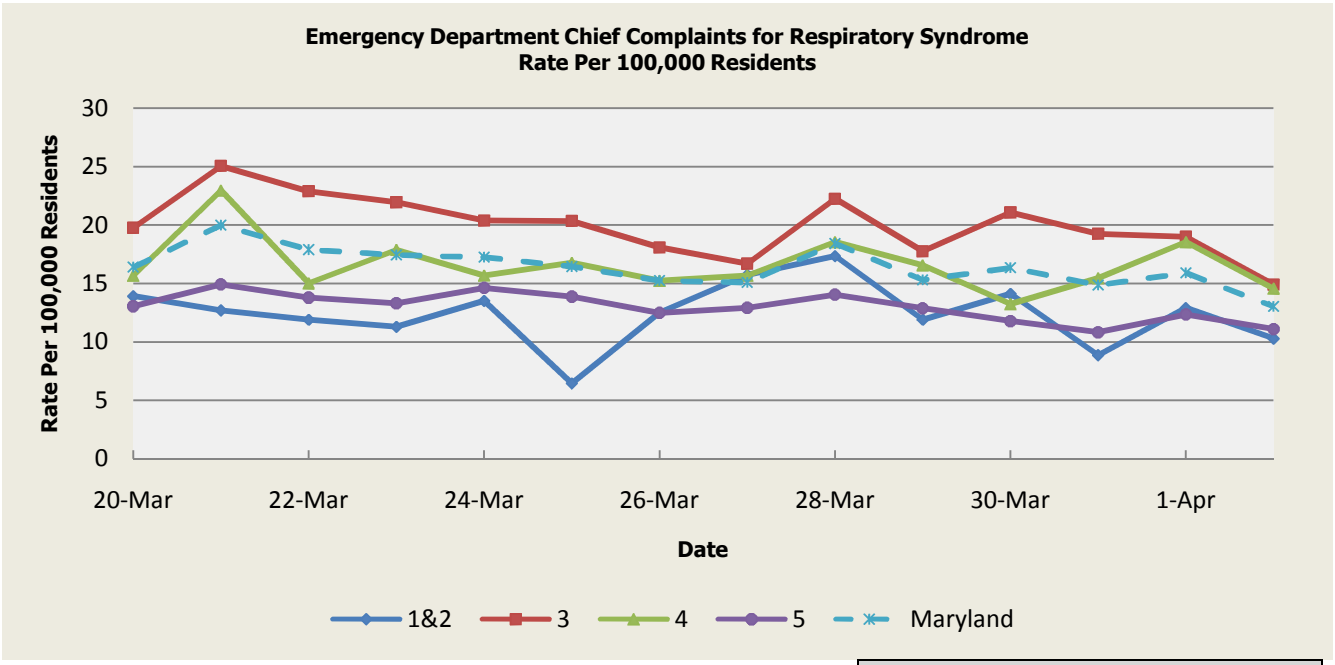
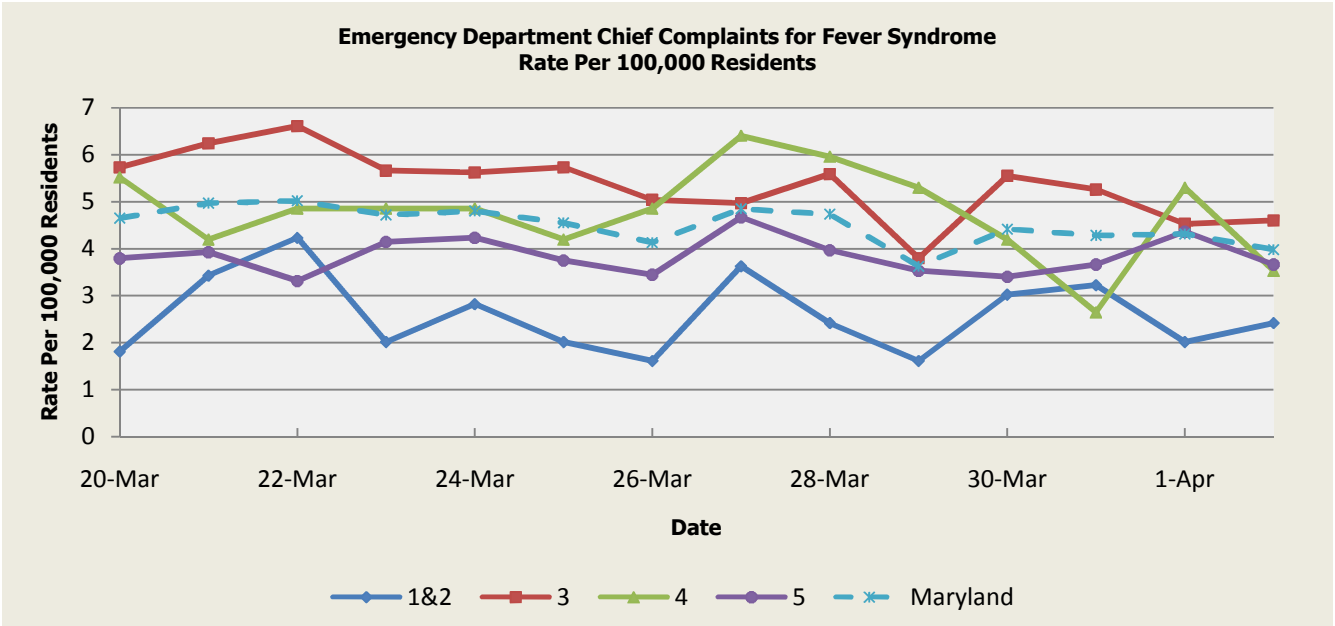


There were four respiratory illness outbreaks reported this week: 1 outbreak of influenza in a nursing home (Region 3). 1 outbreak of ILI in an assisted living facility (Region 4). 1 outbreak of pneumonia in a nursing home (Region 1&@). 1 outbreak of pneumonia in an assisted living facility (Regions 1&2).

	Respiratory Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	11.99	14.01	14.02	9.92	12.27
Median Rate*	11.70	13.30	13.47	9.47	11.73

* Per 100,000 Residents



There were no fever outbreaks reported this week.

	Fever Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.08	3.78	3.93	3.09	3.47
Median Rate*	3.02	3.58	3.75	2.97	3.33

Per 100,000 Residents

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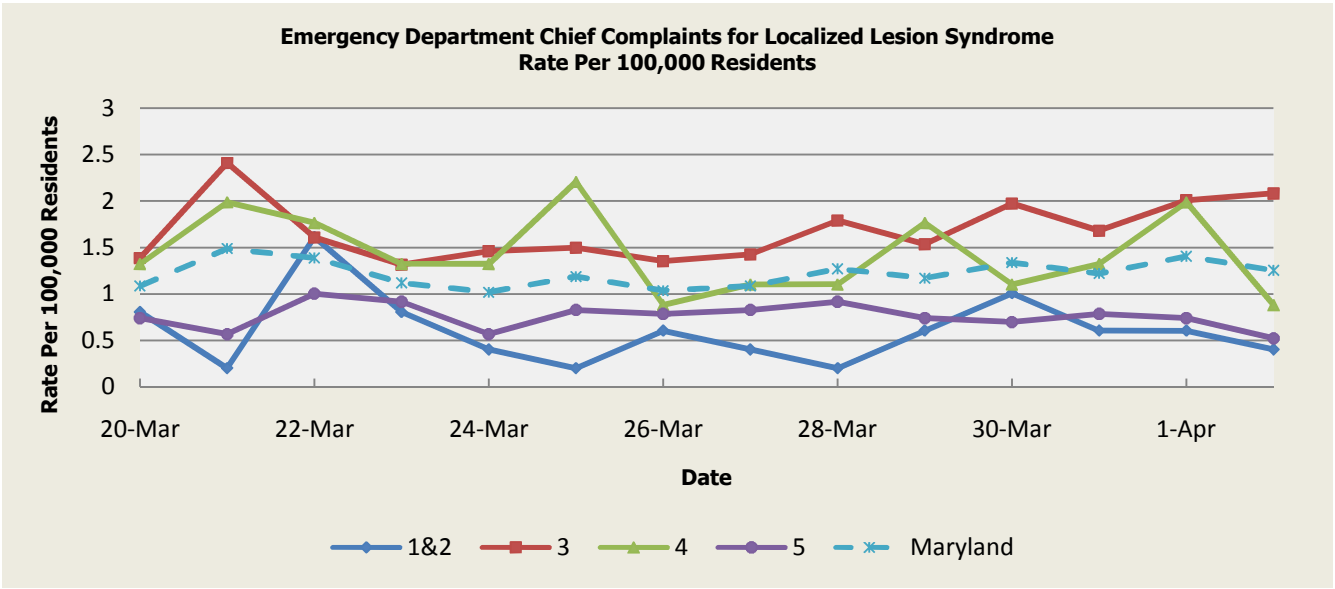
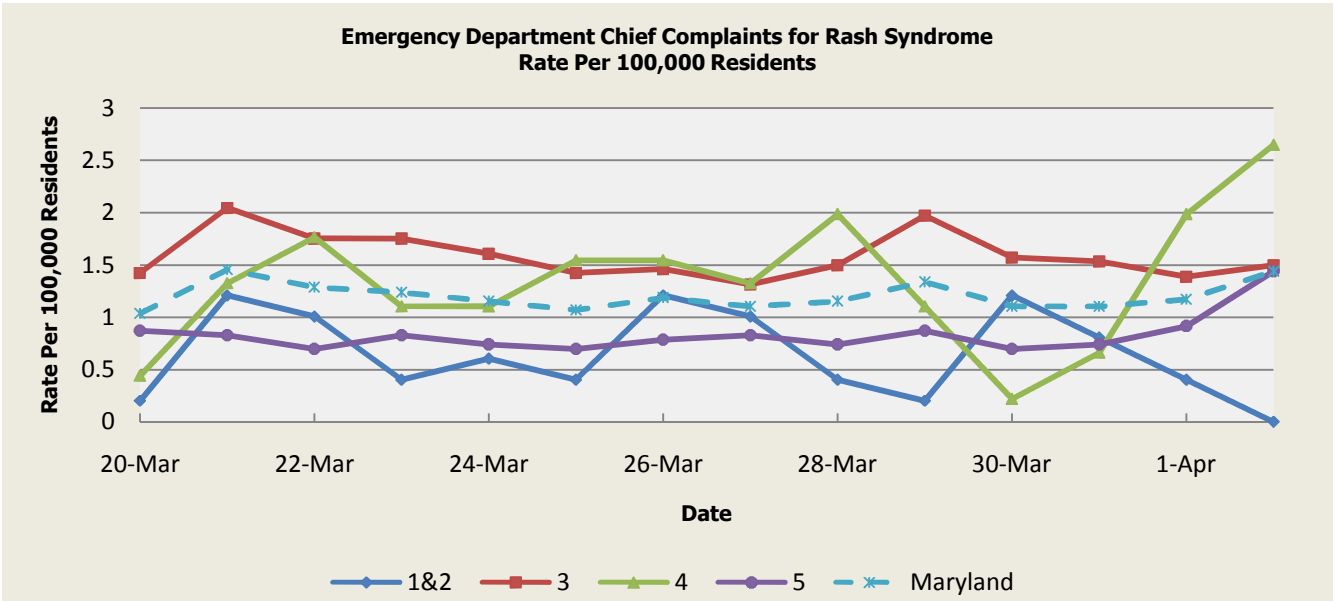


There were no localized lesion outbreaks reported this week.

	Localized Lesion Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.07	1.92	2.03	0.99	1.50
Median Rate*	1.01	1.86	1.99	0.96	1.44

* Per 100,000 Residents



There were no rash outbreaks reported this week.

	Rash Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.30	1.74	1.75	1.05	1.44
Median Rate*	1.21	1.68	1.77	1.00	1.39

* Per 100,000 Residents

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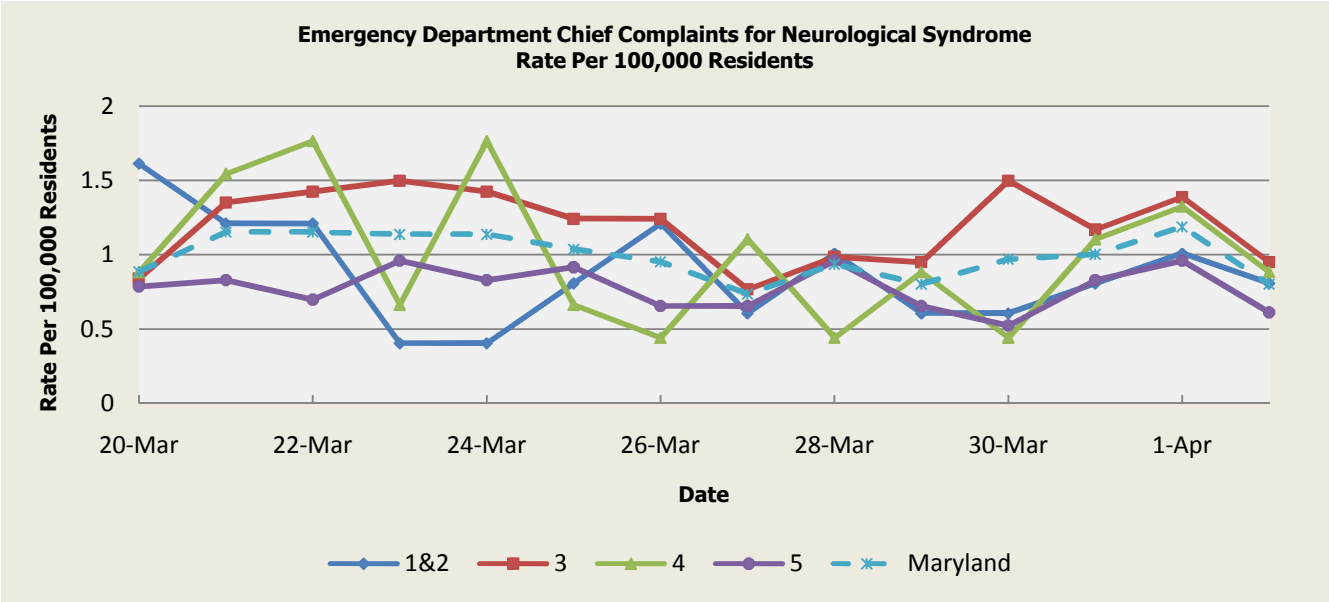
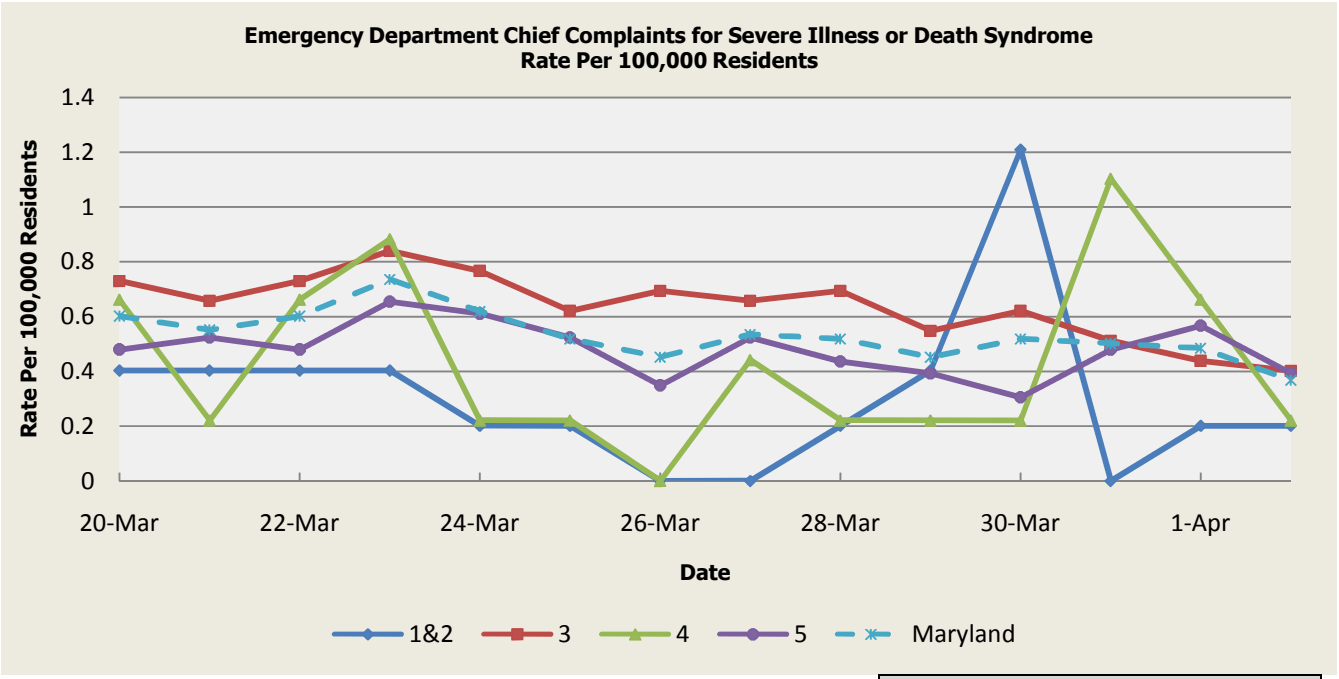


There were no neurological syndrome outbreaks reported this week.

	Neurological Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.63	0.72	0.64	0.47	0.61
Median Rate*	0.60	0.66	0.66	0.44	0.55

* Per 100,000 Residents



There were no severe illness or death outbreaks reported this week.

	Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.71	0.95	0.85	0.44	0.73
Median Rate*	0.60	0.95	0.88	0.44	0.72

* Per 100,000 Residents

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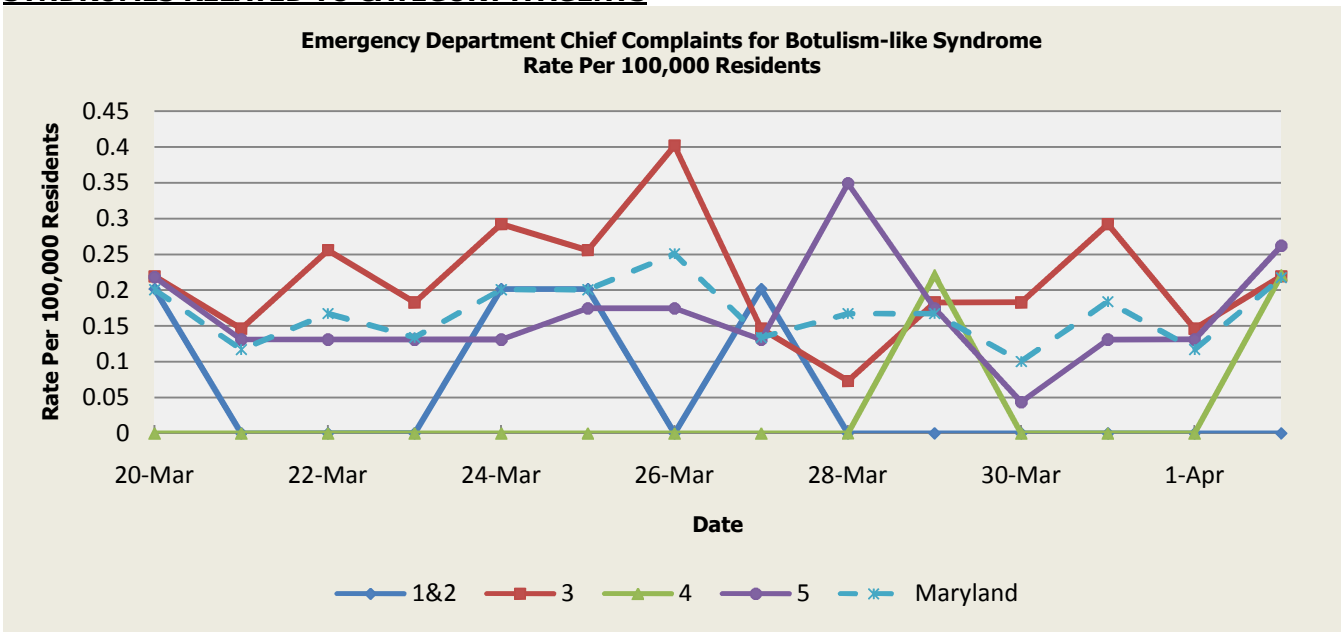
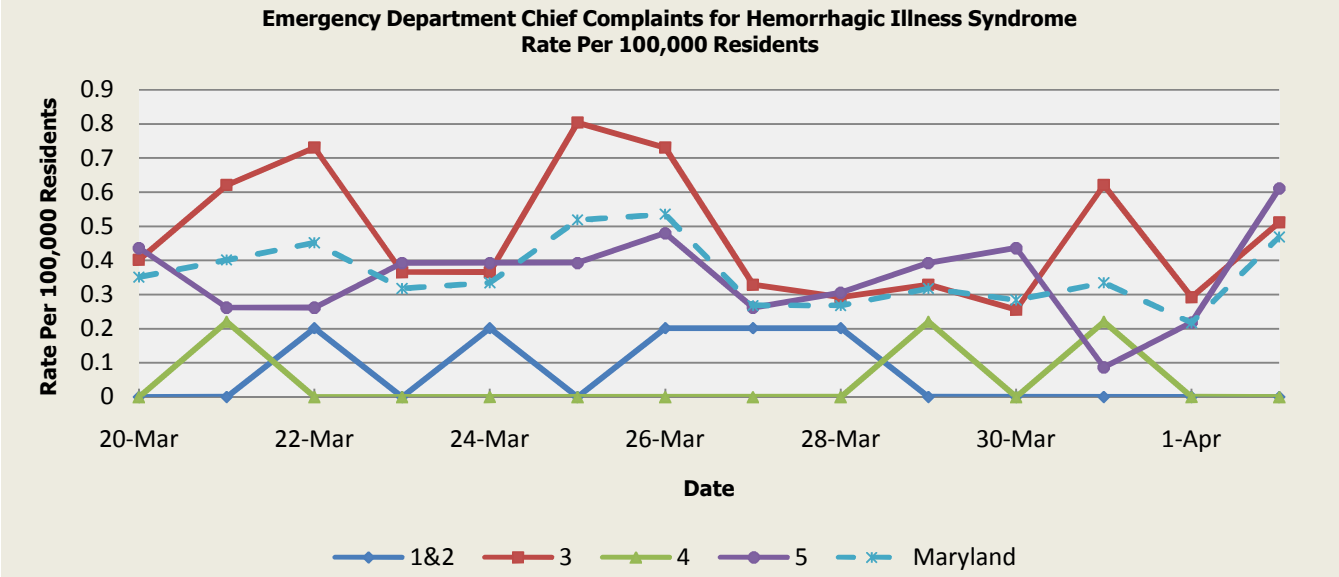
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 3/20 (Region 1&2, 3, 5), 3/21 (Region 5), 3/22 (Region 3, 5), 3/23 (Region 3, 5), 3/24 (Region 1&2, 3, 5), 3/25 (Regions 1&2, 3, 5), 3/26 (Regions 3,5), 3/27 (Region 1&2, 5) 3/28 (Regions 5), 3/29 (Regions 3, 4, 5), 3/30 (Regions 3,5), 3/31 (Regions 3, 5), 4/1 (Regions 5), and 4.2 (Regions 3, 4, 5). These increases are not known to be associated with any outbreaks.

	Botulism-like Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.08	0.04	0.05	0.06
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 3/20 (Regions 3, 5), 3/23 (Regions 3, 5), 3/24 (Regions 1&2, 3, 5), 3/25 (Regions 3,5), 3/26 (Regions 1&2,3,5), 3/27 (1&2, 3, 5), 3/28 (Regions 1&2, 3, 5), 3/29 (Regions 3, 4, 5), 3/30 (Regions 3,5), 3/31 (Regions 3, 4), 4/1 (Regions 3,5) and 4/2 (Regions 13,5). These increases are not known to be associated with any outbreaks.

	Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.10	0.03	0.07	0.08
Median Rate*	0.00	0.04	0.00	0.04	0.03

* Per 100,000 Residents

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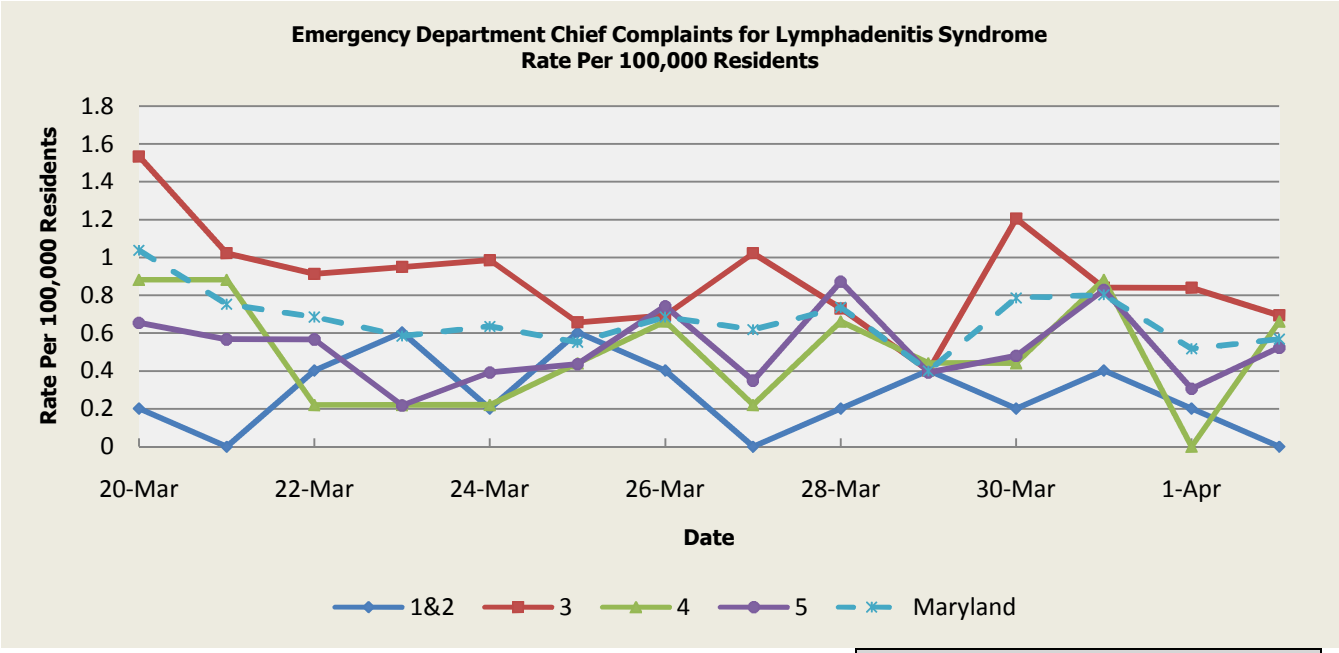

There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 3/20 (Region 3, 4, 5), and 3/21 (Region 3, 4, 5), 3/22 (Regions 5), 3/24 (Region 3), 3/26 (Regions 5), 3/27 (Regions 3), 3/30 (Regions 3), and 3/31 (Regions 4). These increases are not known to be associated with any outbreaks.

	Lymphadenitis Syndrome Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.45	0.34	0.29	0.37
Median Rate*	0.20	0.37	0.22	0.26	0.32

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

	Counts of Reported Cases‡					
Condition	**April**			**Cumulative (Year to Date)****		
Vaccine-Preventable Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Aseptic meningitis	0	2.8	3	67	88.2	85
Meningococcal disease	0	0	0	1	2.8	3
Measles	0	0	0	1	1.6	0
Mumps	1	1.4	0	3	15.4	3
Rubella	1	0	0	1	0.6	1
Pertussis	1	2.6	3	36	66	69
Foodborne Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Salmonellosis	0	3.4	3	95	139	132
Shigellosis	0	1.4	1	24	45	38
Campylobacteriosis	0	5.8	6	132	117.8	113
Shiga toxin-producing Escherichia coli (STEC)	0	0.6	0	26	19.8	20
Listeriosis	0	0	0	2	1.6	1
Arboviral Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
West Nile Fever	0	0	0	0	0	0
Lyme Disease	0	11.4	12	125	185.6	162
Emerging Infectious Diseases	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Chikungunya	0	0	0	2	2.6	0
Dengue Fever	0	0	0	7	2.8	1
Zika Virus***	0	0	0	6	0	0
Other	**2016**	**Mean***	**Median***	**2016**	**Mean***	**Median***
Legionellosis	0	0.6	0	21	22.6	22

‡ Counts are subject to change *Timeframe of 2011-2015 **Includes January through current month

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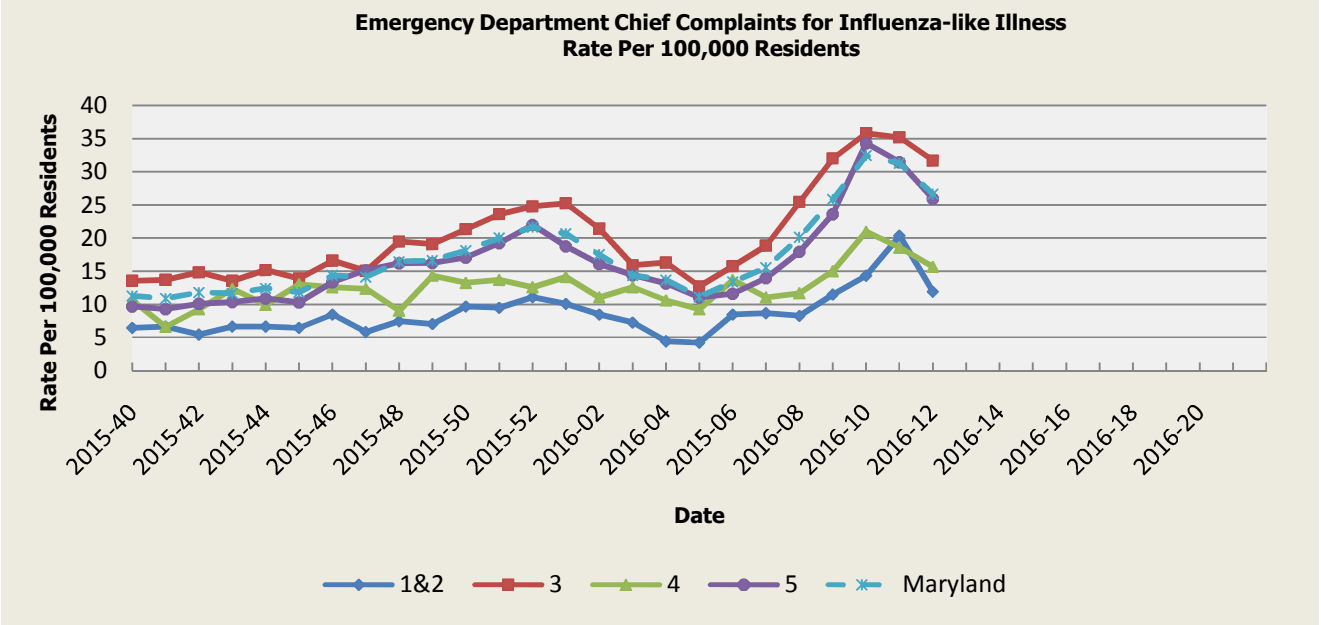
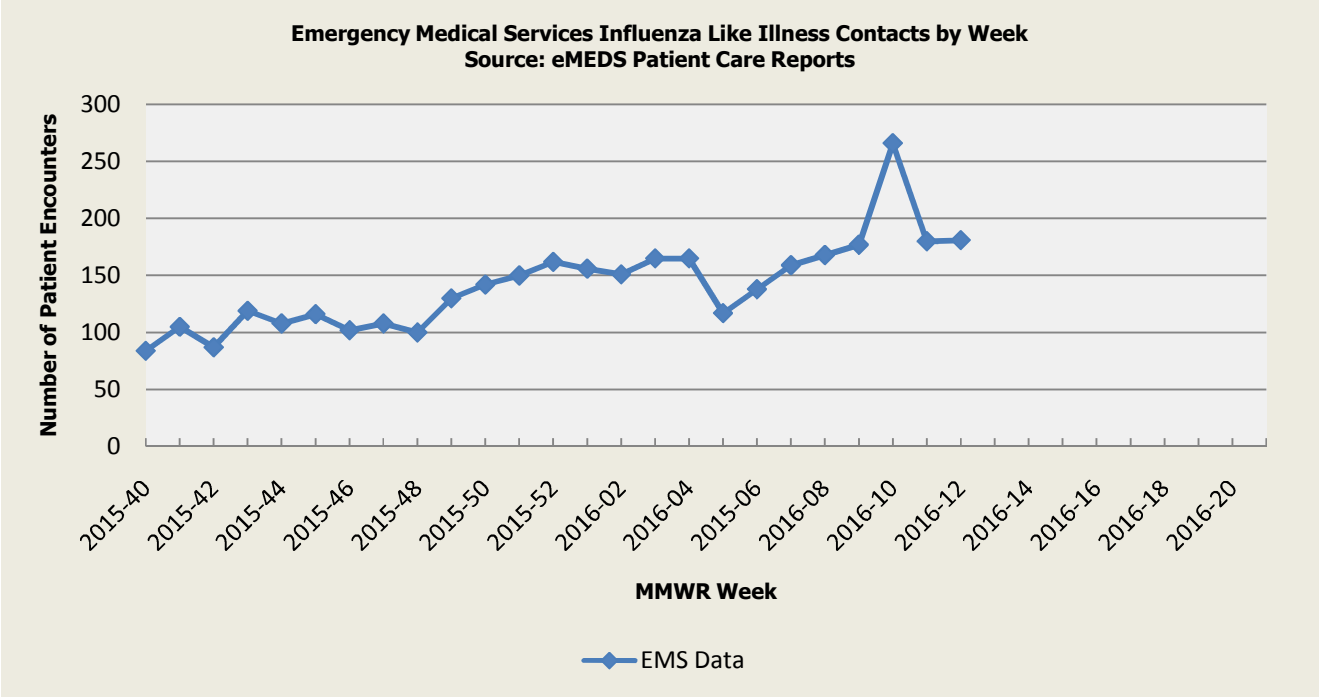
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 40 through MMWR Week 20 (October through May).
Seasonal Influenza activity for Week 13 was: Widespread Geographic Spread with Minimal Intensity.



	Influenza-like Illness Baseline Data Week 1 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	9.30	11.41	10.79	10.34	10.78
Median Rate*	7.66	8.93	9.05	7.97	8.57

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: This data is based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. This data is reported for trending purposes only.

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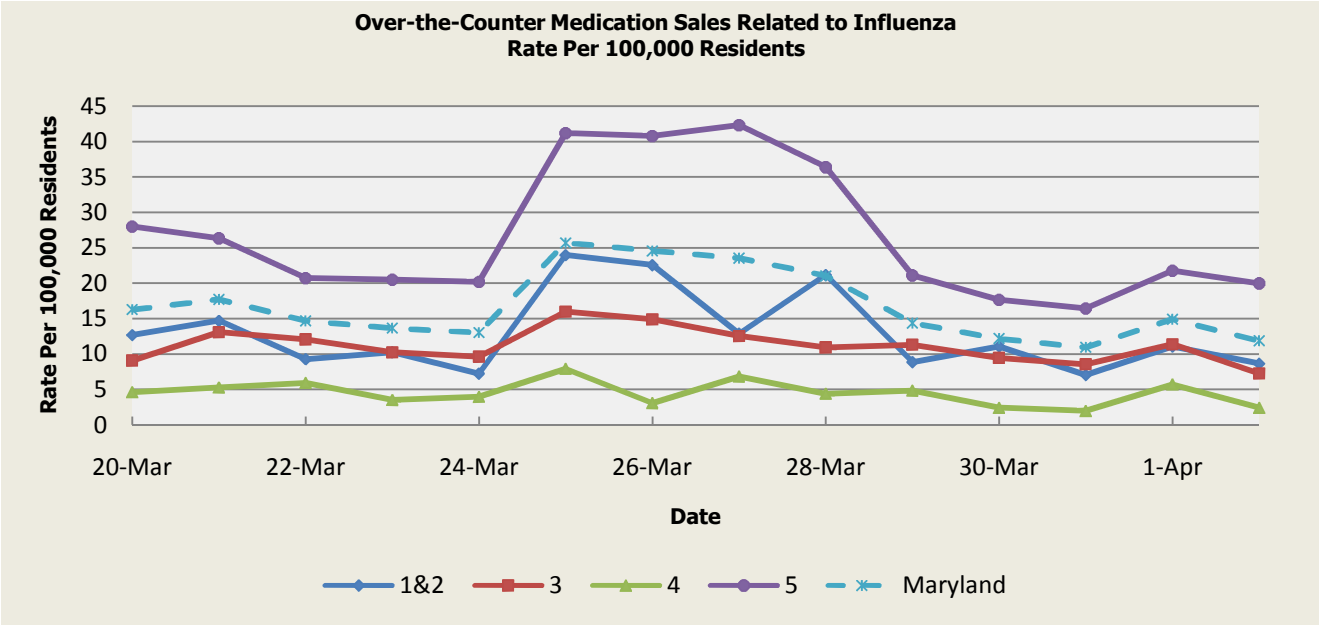
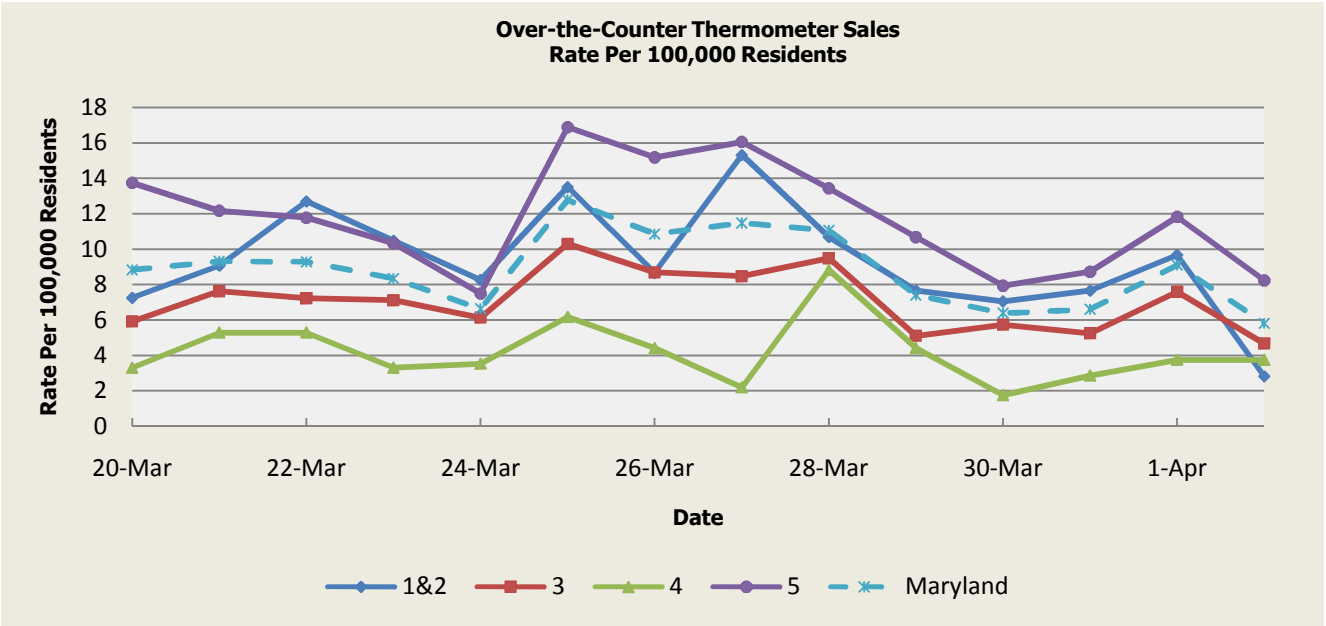


There was an appreciable increase above baseline in the rate of OTC flu medication sales on 3/20 (Regions 1&2), 3/21 (Regions 1&2,3), 3/25 (Regions 1&2, 3, 4, 5), 3/26 (1&2, 3, 5), 3/27 (1&2, 3, 5), and 3/28 (1&2, 5).

	OTC Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.85	6.47	3.25	14.47	9.24
Median Rate*	4.44	5.41	2.87	11.66	7.53

* Per 100,000 Residents



There was an appreciable increase above baseline in the rate of OTC thermometer sales on 3/22 (Regions 1&2), 3/25 (Region 1&2, 3, 5), 3/26 (Regions 5), 3/27 (Regions 1&2, 5), and 3/28 (Regions 3, 4, 5).

	Thermometer Sales Baseline Data January 1, 2010 - Present				
Health Region	1&2	3	4	5	Maryland
Mean Rate*	5.77	4.76	3.34	7.81	5.91
Median Rate*	5.04	4.38	3.09	7.16	5.45

* Per 100,000 Residents

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PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of February 25, 2016, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 846, of which 449 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

Avian Influenza in Humans:

H7N9 (CHINA): 28 Mar 2016, One H7N9 human case has been reported in Xuancheng City of Anhui, the provincial health authority said on Monday [28 Mar 2016]. A 45-year-old man was diagnosed with the disease on 25 Mar 2016. He has been confirmed to have had contact with live poultry. He is in critical condition and receiving treatment in Xuancheng. A joint prevention and control mechanism has been initiated in Xuancheng. So far, 5 cases have been reported in Anhui this year [2016]. Read More: http://www.promedmail.org/post/4128528

There were no reports of human cases of avian influenza in the United States at the time that this report was compiled.

Avian Influenza in Poultry:

H5N1 (INDONESIA): 2 Apr 2016, Bird flu has struck the Sidenreng Rappang regency, South Sulawesi and as of yesterday [Fri 1 Apr 2016], the avian flu virus is reported to have killed about 11 000 birds, mostly ducks. Read More: http://www.promedmail.org/post/4124502

NATIONAL DISEASE REPORTS

SALMONELLOSIS (GEORGIA): 31 Mar 2016, The CDC is investigating how one of its own lab workers became infected with a strain of salmonella that was being used as part of their job, the agency announced Thursday, 31 Mar 2016. The possible lab-acquired infection is the latest in a series of incidents at the Atlanta [Georgia]-based agency, including previous mishandling of specimens of anthrax, Ebola and a deadly strain of avian influenza. Read More: http://www.promedmail.org/post/4132686

VIBRIO VULNIFICUS (LOUISIANA): 31 Mar 2016, It is only early spring and already, Christus St. Patrick Hospital infectious disease physician, Dr. Tim Haman, says 1 case each of infection with *Vibrio vulnificus*, a cause of flesh-eating bacterial disease [necrotizing fasciitis] and *Mycobacterium marinum* [a more indolent

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skin infection caused by a tuberculosis-related organism that does not transmit from person to person] have sickened people from exposure to salty-brackish waters of Southwest Louisiana. Read More: http://www.promedmail.org/post/4136309

E. COLI EHEC (CONNECTICUT): 1 Apr 2016, The Connecticut state Department of Public Health [DPH] is investigating an *E. coli* O157 outbreak linked to a farm in Lebanon [Connecticut] and the cases keep growing. As of noon Friday, 1 Apr 2016, DPH is investigating 34 confirmed cases of linked to the Oak Leaf Dairy Farm in Lebanon. As of Monday [28 Mar 2016], there were 15 cases. Read More: http://www.promedmail.org/post/4133414

INTERNATIONAL DISEASE REPORTS

CRYPTOSPORIDIOSIS (UK): 31 Mar 2016, A Monmouthshire [Wales] farm is being investigated after a number of visitors tested positive for a microscopic parasite that causes a diarrheal disease. Public Health Wales, Torfaen County Borough Council and Monmouthshire County Councilare investigating an outbreak of cryptosporidium at Coleg Gwent's farm in Usk. Read More: http://www.promedmail.org/post/4136165

LEGIONELLOSIS (AUSTRALIA): 1 Apr 2016, Three people hospitalised with legionnaires' disease in southern Sydney may have contracted the illness in the very hospital [St George Hospital in Kogarah, New South Wales] they are recovering in. Two men, aged 64 and 76, and one woman, 85, are currently being treated for the bacterial lung infection at St George Hospital. Read More: http://www.promedmail.org/post/4133743

ANTHRAX (INDIA): 4 Apr 2016, Anthrax has claimed at least 4 lives in the last 7 days in Jamuguda village under Kashipur block of the district [Rayagada, Odisha]. A medical team from Kashipur Community Health Centre (CHC) visited the village on [Sun 3 Apr 2016]. The health officials administered medicines to more than 60 affected villagers and family members of the deceased. Read More: http://www.promedmail.org/post/4138128

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMH website: http://phpa.dhmh.maryland.gov/influenza/fluwatch/Pages/Home.aspx

Please participate in the Maryland Resident Influenza Tracking System (MRITS): http://flusurvey.dhmh.maryland.gov

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

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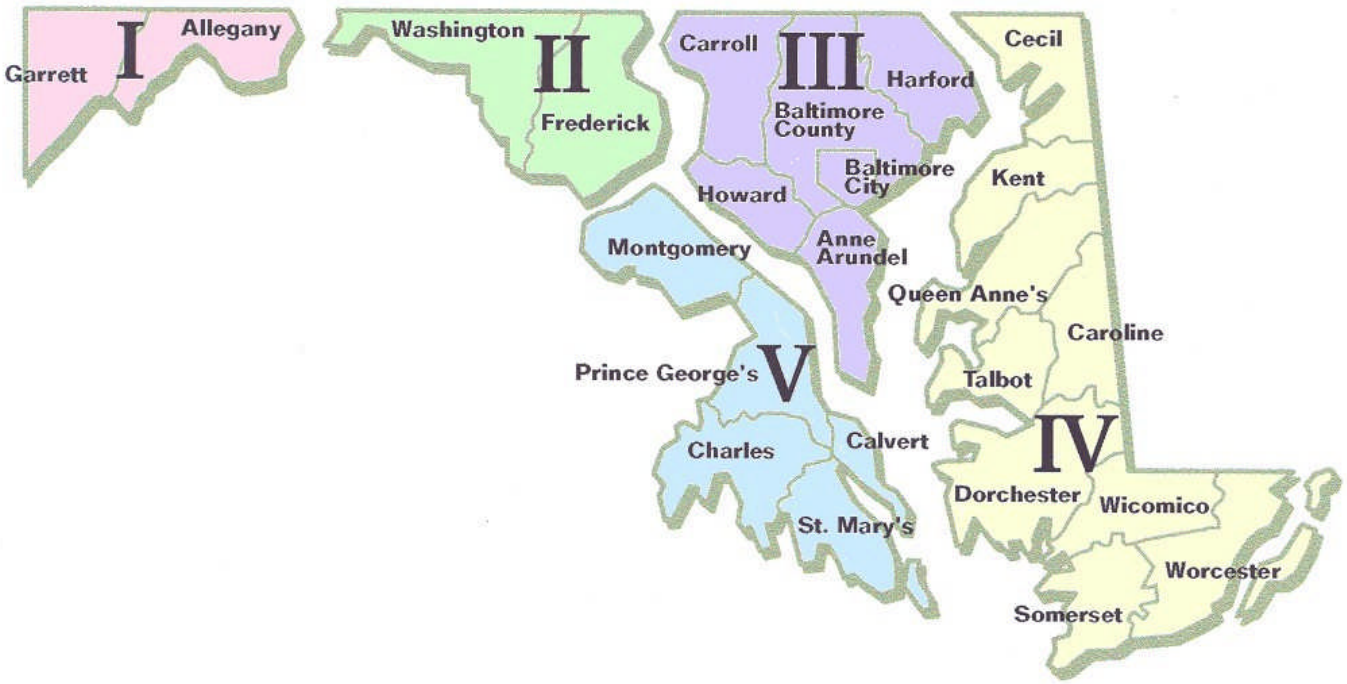
Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County



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